



Purchase of the Water Company

Financial Update

Table of Contents

Feasibility Study Financial Analysis	2
How was the feasibility study conducted and what was its approach?	2
What methodology was used?	3
Purchase Price Determination	4
How is the purchase price for the water company determined?	4
Is the purchase price static or does it change over time?	4
What were the initial purchase price positions of Aquarion and the Town?	4
Did the Town attempt to negotiate a price with Aquarion?	4
Why did the Town take legal action?	4
What purchase prices did the Town and Aquarion submit during the trial?	5
What was the result of the legal action?	5
What's the latest estimate of the water company's purchase price?	5
How does the purchase price change over time?	5
Financial Update Conclusions	6
What were the conclusions of the financial update?	6
Municipal Ownership Costs	7
How much would it cost the Town to operate the water company?	7
What's included in municipal Operations and Maintenance (O&M) costs, and what assumptions are being made about cost inflation?	7
What assumptions does the financial analysis make about cost increases under municipal ownership?	7
What purchase price does the financial analysis assume?	8
How will the water company be financed? Are debt service costs included in the analysis?	8
How were interest rates determined?	8
What level of capital investment is assumed in the financial analysis? Is it adequate?	8
Would ratepayers' rates increase to cover the purchase price?	9
Why do costs under Town ownership only increase by 1.2% if operating costs are projected to increase by 3% each year?	9
Cost Savings	10
What variables influence the calculation of potential cost savings under Town ownership?	10
What Aquarion revenue assumptions are included in the analysis?	10
What are the assumptions made in Scenario #1 and what are the potential savings?	11
What are the assumptions made in Scenario #2 and what are the potential savings?	11
Why does Town ownership produce so many savings?	11
Why does WRIM have such a significant impact on the financial analysis?	12
Under what circumstances would WRIM end?	12
What happens to savings under Town ownership if the WRIM capital surcharge extends beyond 2021?	12
What are the conclusions of the financial update?	13
Feasibility Study Expenses and Savings	14
How much money has been authorized for the feasibility study?	14
Where has the feasibility study money come from?	14
Feasibility Study Costs and Savings	15
How much has the Town spent on the feasibility study?	15
Would feasibility study funds be repaid if the Town purchases the water company?	15
Have there been any savings to ratepayers since the feasibility study began?	15

Feasibility Study Financial Analysis


How was the feasibility study conducted and what was its approach?

The Town's Board of Selectmen formed a Water Company Acquisition Study Committee to conduct the feasibility study. Appointed committee members included four former Advisory Committee Chairs and the Chair of the Sewer Commission. Members stated at the outset they had no opinions as to whether or not the Town should purchase the water company.

The charge of the committee was to determine whether or not to recommend that the Town purchase the water company. The committee set four requirements for a positive recommendation to purchase:

- Rate-transparent acquisition (acquisition alone would not necessitate a rate increase)
- Establish significant capital reserve upon acquisition
- Replenish capital reserve annually
- Repay all feasibility study costs (including litigation)

From May 2012 to June 2013, the Committee worked to develop a recommendation to the Board of Selectmen regarding the feasibility and advisability of Town acquisition of the water company.



Approach

- Determined requirements for a feasible and advisable potential purchase recommendation to the Board of Selectmen
 - ☐ Rate-transparent acquisition (acquisition alone would not necessitate a rate increase)
 - ☐ Establish significant capital reserve upon acquisition
 - ☐ Replenish capital reserve annually
 - ☐ Repay all feasibility study costs (including litigation)
- Received financial statements from Aquarion and held 3 reconciliation meetings
- Used rate-case filing documents and financial statements from Aquarion to create financial analysis

Date	Event
7/2012	Aquarion presents three valuations to the Town and maintains that the water treatment plant would not be considered part of the water company formed by the 1879 statute. Aquarion's valuation of all corporate property was \$184.5 million
8/2012	Committee presents initial expert financial analysis to Board of Selectmen with initial system valuation of \$50 - \$60 million
9/2012	Committee performs 'look-ahead' analysis of Engineering requirements and potential Governance issues; does not find any show-stoppers (<i>i.e.</i> , insurmountable obstacles)
9-10/2012	Committee holds 3 financial reconciliation meetings with Aquarion
10/2012	Committee delivers a second expert's financial analysis to Board of Selectmen
1-3/2013	Committee evaluates the Town's eminent domain rights
6/2013	Committee votes to recommend that the Board of Selectmen take the necessary steps to begin a potential acquisition through either negotiation or litigation

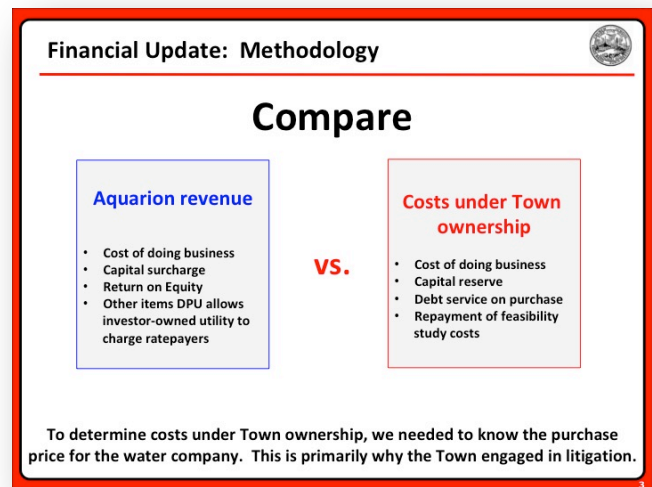
What methodology was used?

The methodology used by the committee was to compare the costs of continued Aquarion ownership—based on Aquarion’s stated intent to file for rate increases every three years—with projected costs under Town ownership.

Town costs for operation of the water company were based upon a detailed cost estimate from an experienced national water system management (outsourcing) firm, supplemented by estimated costs for a full-time Town manager of the outsourcing firm, costs for Town-performed customer service and billing, and one-time costs for transition of the system’s operation from Aquarion to the Town.

Additional Town costs were included to cover borrowing costs for purchase of the water company, repayment to the Town’s Unrestricted Fund Balance of all feasibility study expenditures, and establishment of an initial \$5 million capital reserve replenished by \$2 million annually.

The resultant difference between the costs of continued Aquarion ownership and the costs of Town ownership constitute the savings that ratepayers would experience were the Town to acquire the water company.



Purchase Price Determination

How is the purchase price for the water company determined?

The 1879 statute that formed the water company defines the formula for calculating the purchase price. It seeks to provide investors with a return on their investment in the water system while taking into account any dividends paid.

The formula is *“the actual cost of the same, together with interest thereon at a rate not exceeding ten percent per annum, said cost to include all actual loss or damage paid or suffered by said company...deducting from said cost any and all dividends which may have been paid...or at such a price as may be mutually agreed upon....”*

Purchase Price Determination



- Based on 1879 statute
- Increases over time as capital infrastructure accrues 10%/year interest
- Town attempted to negotiate a price with Aquarion
- Town took legal action because:
 - Negotiations were not productive
 - There was disagreement as to a price defined by the statute
 - There was disagreement whether the water treatment plant was governed by 1879 statute

Is the purchase price static or does it change over time?

Because the value of the water system’s capital infrastructure grows over time and generates interest at the rate of 10% per year, the purchase price calculation will continuously increase over time.

What were the initial purchase price positions of Aquarion and the Town?

In a July 2012 presentation in Town Hall’s Sanborn Auditorium, Aquarion signaled that the purchase price to be paid by the Town for all the water company corporate property—including the water treatment plant as of June 2012—was \$184.5 million. Aquarion also maintained that the water treatment plant—constructed in 1995—was not part of the water system governed by the 1879 statute.

During the 2012-2014 timeframe, the Town retained three different valuation experts, each of which independently calculated the water system’s purchase price to be between \$50 million and \$60 million.

Did the Town attempt to negotiate a price with Aquarion?

Yes. Town officials and Aquarion executives met several times during the second half of 2012 and the first several months of 2013, but Aquarion consistently rejected the Town’s repeated offers to negotiate a mutually agreeable purchase price.

Why did the Town take legal action?

The Town took legal action for three reasons:

1. Attempts at negotiation had proven unsuccessful
2. The Town and Aquarion could not agree on a purchase price as defined by the statute

3. There was disagreement as to whether the water treatment plant was considered part of the system governed by the 1879 statute

The Town filed suit in the Suffolk County Superior Court Business Litigation Session in July 2013. The purpose of the lawsuit was to determine a legally binding purchase price for the water system and to determine whether the water treatment plant was part of the water system governed by the 1879 statute and, therefore, part of any acquisition by the Town.

What purchase prices did the Town and Aquarion submit during the trial?

During the trial, the Town's valuation expert witness testified that the purchase price as of year-end 2013 should be approximately \$52 million while Aquarion maintained that the purchase price should be just under \$192 million

What was the result of the legal action?

In 2016, the Suffolk County Superior Court ruled that the water treatment plant was part of the water system governed by the 1879 statute and must therefore be included in any acquisition by the Town. The court also ruled on the calculation of the purchase price formula and determined it to be \$88,585,821 as of December 31, 2013.

Following appeals by both the Town and Aquarion, the Appeals Court affirmed the Superior Court ruling in November 2017.

In April 2018, the MA Supreme Judicial Court declined the Town's request for further appellate review, thereby affirming the previously entered judgment, which is carried into perpetuity.

What's the latest estimate of the water company's purchase price?

At the Town's request, in April 2018, Aquarion "rolled forward" the court-ordered year-end 2013 purchase price resulting in a \$103,022,826 purchase price as of December 31, 2017.

Based on the purchase price formula as ordered by the court, the cost to purchase the water company will likely increase by \$3 - \$4 million per year.

Precise calculation of a final purchase price is contingent upon knowing the exact date of any Town Meeting deliberating the water system's potential acquisition. For example, if such an article were to be considered at Annual Town Meeting 2019, the estimated purchase price would be approximately \$108 million.

How does the purchase price change over time?

Based on the court's ruling regarding the purchase price calculation and the average rate of capital infrastructure expansion, it is estimated to increase by \$3 - \$4 million each year.

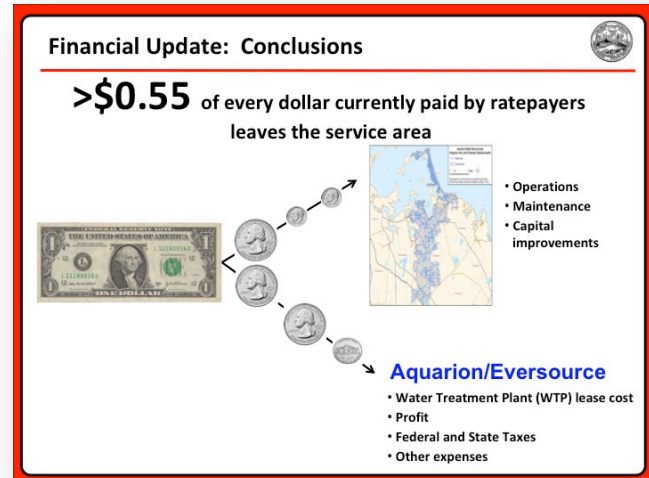
Purchase Price Determination			
Effective Date	Town position	Aquarion position	Court ruling
12/31/2012	\$50-\$60 million	\$184.5 million (Including the water treatment plant)	
12/31/2013	\$52 million	\$192 million	\$88.6 million
12/31/2017			\$103.0 million (Roll forward of court ruling)

Under the formula, the purchase price increases by \$3 - \$4 million per year

Financial Update Conclusions

What were the conclusions of the financial update?

More than \$0.55 of every dollar collected from ratepayers (customers) leaves the service area.



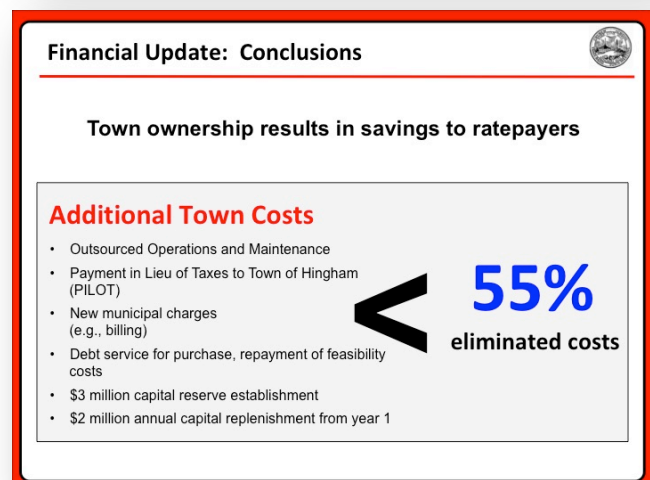
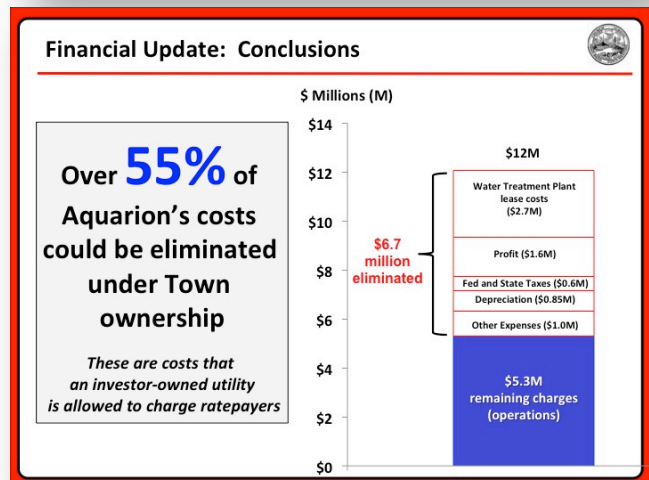
Under Town ownership, over 55% (\$6.7 million) of Aquarion's costs could be eliminated, including Water Treatment Plant lease costs, profit, federal and state taxes, depreciation, and corporate overhead.

These cost savings are more than sufficient to cover both the debt service required to purchase the water company (at the court-determined purchase price and formula) and to increase capital spending.

After repaying the study costs, establishing a \$5.0 million capital reserve in year 1, adding \$2.0 million in annual capital in years 2 and beyond, sufficient funds would remain to purchase and operate the water company without an initial rate increase.

From the time of acquisition, the Town would have available several million dollars of cumulative savings that could be reinvested in capital to upgrade the infrastructure, to accelerate the payment of debt-service costs, or even to reduce rates.

Cost savings would increase further when the purchase price debt is paid off and Town fully owns the water company.



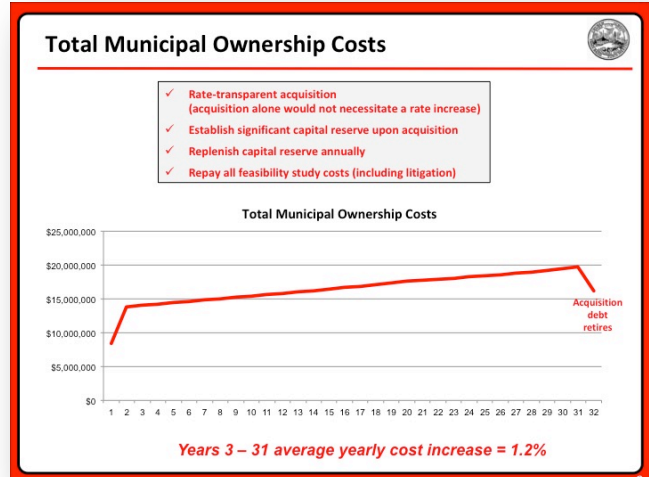
Municipal Ownership Costs

How much would it cost the Town to operate the water company?

The graph on the right shows total annual operating costs under Town ownership. It reflects the four requirements that were established at the onset of the feasibility study, including the establishment of a capital reserve, an annual replenishment of that reserve each year, and repayment of all feasibility study costs.

Year 1 ownership costs reflect one year of short-term borrowing. Municipal ownership costs are reduced beginning in Year 32, when the acquisition debt is retired.

Under municipal ownership, Year 3-31 costs increase by an average of 1.2%.



What's included in municipal Operations and Maintenance (O&M) costs, and what assumptions are being made about cost inflation?

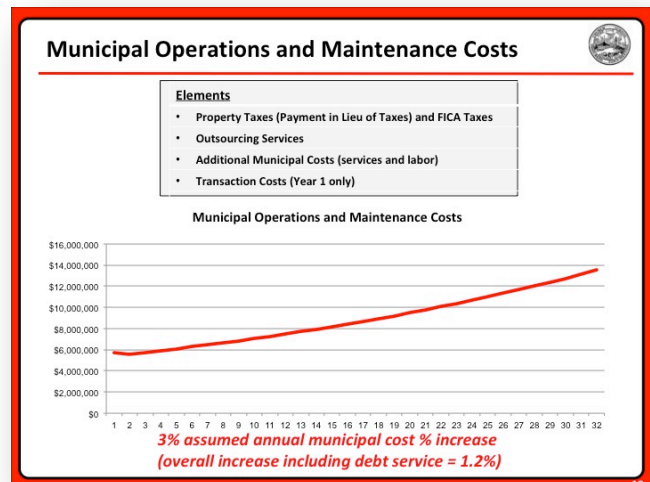
Municipal O&M costs include property taxes, outsourcing services, additional labor and services, and transaction costs (year 1 only).

Aquarion currently pays approximately \$1 million in property taxes each year to the Town.

The Town's financial analysis assumes that--similar to the arrangement with the Hingham Municipal Light Plant--a Payment in Lieu of Taxes (PILOT) would be paid to the Town equal to the amount of property taxes previously received. **The Town would not lose any tax revenue if it were to purchase the water company.**

What assumptions does the financial analysis make about cost increases under municipal ownership?

The analysis assumes a 3% annual increase in municipal costs. However, the overall annual increase in Town costs is projected to be less than 2%, since the Town's debt-service costs decrease each year as the Town pays down principal in equal annual installments.



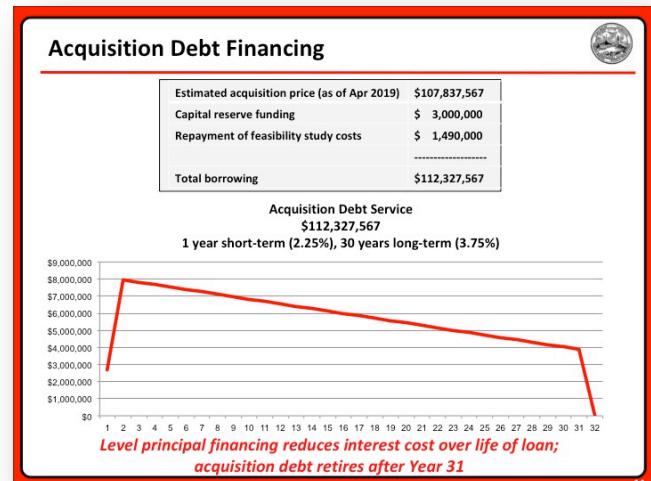
What purchase price does the financial analysis assume?

The financial analysis assumed a purchase price of \$107,837,567, which is the estimated price under the court-ordered statutory formula as of April 2019.

How will the water company be financed? Are debt service costs included in the analysis?

Applying estimated Town borrowing interest rates to the issuance of a one-year short-term note followed the next year by the issuance of 30-year general obligation bonds would provide sufficient funds to:

- Acquire the water company without raising rates to fund the acquisition
- Re-pay the Town's Unrestricted Fund Balance the monies expended on the feasibility study and subsequent litigation
- Establish an initial capital reserve of \$5 million with \$2 million annual supplements in order to accelerate capital infrastructure improvement



Similar to the way it finances other projects, the Town would finance this acquisition with a level principal note, which progressively reduces interest payments by paying down the outstanding principal in equal annual installments for the 30-year term of the borrowing.

At the end of Year 31, the acquisition debt will retire.

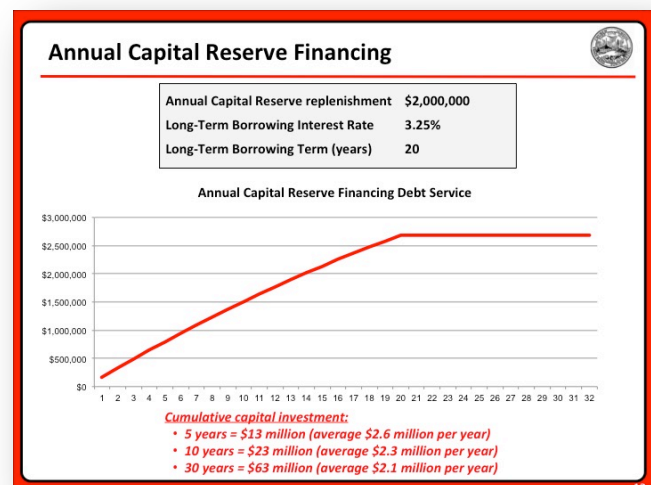
How were interest rates determined?

The Town consulted with its financial advisors, who have provided guidance on short-term and long-term borrowing interest rates.

What level of capital investment is assumed in the financial analysis? Is it adequate?

The financial analysis establishes a \$5 million capital reserve in year 1. Capital spending is budgeted at \$2 million each year thereafter.

Regarding adequacy, Aquarion's November 2016 infraPLAN KANEW study to determine the optimal long-term strategy for Renewal and Replacement (R&R) of water mains from 2017 – 2050 for all its MA water systems, recommended a minimum investment of \$1.8 million through 2070.



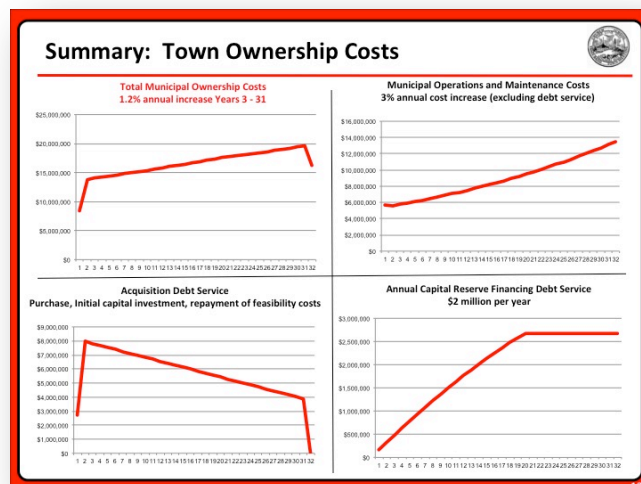
That recommended investment amount for all of Aquarion in MA equates to an annual allotment of roughly \$1.3 million for water main R&R in Service Area A, leaving \$700 thousand each year to fund other capital needs—all supplemented by the additional \$3 million in the first year's capital reserve.

Would ratepayers' rates increase to cover the purchase price?

No. While ratepayer rates would still increase over time to cover inflationary increases in the cost of goods and services, ratepayer rates would not increase to pay the debt service for the short-term note or long-term bonds issued to make the initial purchase.

Why do costs under Town ownership only increase by 1.2% if operating costs are projected to increase by 3% each year?

Similar to the way it finances other projects, the Town would finance this acquisition with a level principal note, which progressively reduces interest payments by paying down the outstanding principal in equal annual installments for the 30-year term of the borrowing.



Cost Savings

What variables influence the calculation of potential cost savings under Town ownership?

In terms of costs under Town ownership, the two variables having the greatest impact on savings calculations are interest rates (which affect debt service costs) and outsourcing costs (which affect operations and maintenance costs).

As previously stated, the Town consulted with its financial advisors, who have provided guidance on interest rates to the Town as it has considered other capital projects.

The outsourcing cost estimate contained in the analysis is the result of an inquiry made by the Town to one potential outsourcing company.

The Town is in the process of issuing a Request for Proposal (RFP) for outsourcing operations of the water company.


In calculating Aquarion future revenue (against which the Town compares its costs to determine potential savings), the three variables having the greatest impact on savings calculation are the current rate case (+13.89%), the currently proposed WRIM capital surcharge, and the frequency and magnitude of future rate increases.

The analysis is based on available information and the Town's reasonable interpretation of the current rate case.

What Aquarion revenue assumptions are included in the analysis?

The Town's financial analysis projected two different scenarios. Scenario #1 assumes the currently proposed 13.89% rate increase will be granted and that Aquarion will adhere to a previously stated intent to file for rate increases every three years, and that each approved rate increase would be 10%.

Scenario #2 projects the same assumptions plus it assumes that the proposed WRIM capital surcharge will be granted through 2021. Scenario #2 does not project the WRIM capital surcharge beyond 2021.




Financial Update Variables

- Town
 - Interest rates
 - Outsourcing costs
- Aquarion
 - Current rate case
 - WRIM capital surcharge
 - Frequency and magnitude of future rate increases

This analysis is based on available information and our understanding and reasonable interpretation of the current rate case

14



Aquarion Revenue Assumptions: 2 Scenarios

#1	#2
13.89% requested rate increase	13.89% requested rate increase
	+
	WRIM* capital surcharge to 2021
	+
10% rate increases every 3 years	10% rate increases every 3 years

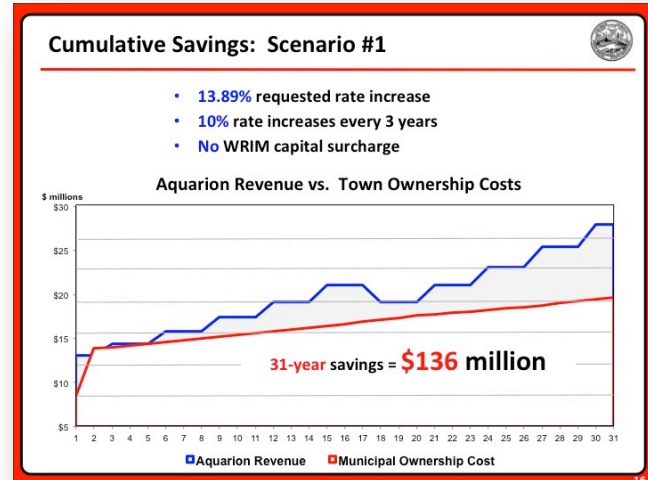
*WRIM → Proposed Water Reliability Improvement Mechanism annual surcharge

15

What are the assumptions made in Scenario #1 and what are the potential savings?

Scenario #1 assumes DPU approval of Aquarion's 13.89% rate-increase filing excluding any Water Reliability Improvement Mechanism (WRIM) annual capital surcharge.

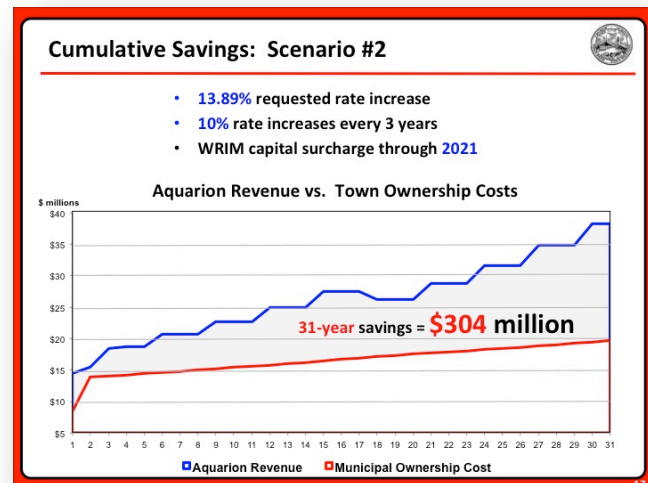
Using Aquarion's March 19, 2018 starting revenue requirement of \$13,777,941, the financial analysis projects approximately \$136 million in cumulative cost savings from 2019 – 2049 under Town ownership.



What are the assumptions made in Scenario #2 and what are the potential savings?

Scenario #2 assumes DPU approval of Aquarion's 13.89% rate increase filing and includes Water Reliability Improvement Mechanism (WRIM) annual capital surcharges from 2017 - 2021.

Using Aquarion's March 19, 2018 starting revenue requirement of \$13,777,941 and the associated WRIM capital surcharges provided by Aquarion, while adhering to Aquarion's proposed annual and rate-case WRIM surcharge caps, approximately \$304 million in cumulative cost savings result from 2019 – 2049 under Town ownership.



Why does Town ownership produce so many savings?

Town ownership enables significant cost savings relative to continued Aquarion ownership for several reasons:

1. Under Town ownership, the necessary capital investment can be made without imposing a surcharge (WRIM)

2. Lower borrowing costs because of the Town's triple Triple A bond rating
3. The absence of shareholders to whom profit must be paid in the form of dividends
4. The reduction of corporate overhead costs incurred for public relations expense, executive salaries, shared office space, water treatment plant rent, and other apportioned administrative costs

Why does WRIM have such a significant impact on the financial analysis?

According to DPU filings, the WRIM investment would be incorporated into the rate base, which would become the basis (starting point) for the next rate increase and for future WRIM surcharges should they occur.

- *"The WRIM is an interim measure, meaning that it will operate on cycles between base-rate cases. This is because, under the Department's precedent, all recovery would be shifted from the WRIM to base rates as part of each rate case..."*
(Source: DPU 17-90 Towns 7-24, 8 Jun 2018)
- *"...Further, the rate base recovered through the WRIM factor will be rolled into the rate base of the new base rates and the WRIM factor will be reset to zero."*
(Source: DPU 17-90 Towns 5-6, 30 Mar 2018)

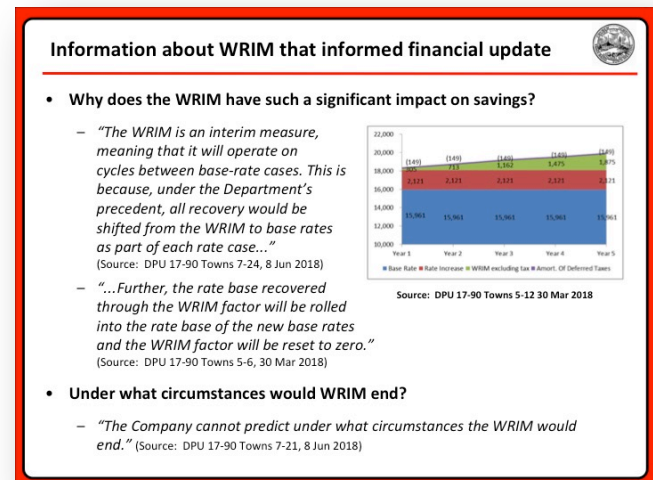
The compounding effect of WRIM is significant.

Under what circumstances would WRIM end?

According to Aquarion, *"The Company cannot predict under what circumstances the WRIM would end."*
(Source: DPU 17-90 Towns 7-21, 8 Jun 2018).

What happens to savings under Town ownership if the WRIM capital surcharge extends beyond 2021?

They increase substantially. According to DPU filings, the WRIM investment would be incorporated into the rate base, which would become the basis (starting point) for the next rate increase and for future WRIM surcharges should they occur. The compounding effect of WRIM on ratepayer charges is significant.



What are the conclusions of the financial update?

Under Town ownership, Hingham continues to receive property tax revenue for the land and buildings owned by the water company. In addition, as evidenced by the WRIM filing and comments made by Aquarion representatives in the rate case proceeding, ratepayers will pay for capital improvements regardless of who owns the water company.

There are three major financial differences under Town ownership:

1. The cost of doing business increases at a slower rate, which means smaller rate increases going forward that will result in substantial savings to ratepayers.
2. Under Town ownership, capital investment can be accelerated and meet the requirements defined in the KANEW study within the existing rate base. A WRIM surcharge would not be needed.
3. Once the Town has fully paid the debt service to acquire the system (31 years), costs decline significantly.

Financial Update: Conclusions	
What's the same under Town Ownership: <ul style="list-style-type: none">- Town receives property tax revenue- Ratepayers pay for capital improvements	What's different under Town Ownership: <ul style="list-style-type: none">- Cost of doing business increases at a slower rate<ul style="list-style-type: none">• Implication: smaller rate increases resulting in substantial savings to ratepayers- No surcharge needed to accelerate capital investment- Acquisition debt retires after 31 years (Town has fully paid for system)<ul style="list-style-type: none">• Costs decline significantly

Feasibility Study Expenses and Savings

How much money has been authorized for the feasibility study?

To date, \$1,490,000 has been authorized for the feasibility study.

Date	Amount	Source	Purpose
4/2012	\$320,000	Town meeting	Study (Original article requested \$500,000. The Board of Selectmen amended the request downward by \$180,000 to exclude litigation)
2/2014	\$150,000	Reserve Fund Transfer (approved by Board of Selectmen and Advisory Committee)	Litigation to obtain price
4/2014	\$475,000	Town Meeting	Litigation to obtain price
2/2015	\$75,000	Reserve Fund Transfer (approved by Board of Selectmen and Advisory Committee)	Response to Aquarion filing for Partial Summary Judgment
6/2015	\$85,000	Reserve Fund Transfer (approved by Board of Selectmen and Advisory Committee)	Response to Aquarion motion to exclude the Town's expert witness testimony
12/2015	\$85,000	Reserve Fund Transfer (approved by Board of Selectmen and Advisory Committee)	Response to Superior Court's Findings of Fact
4/2016	\$300,000	Town Meeting	Potential appeal

Where has the feasibility study money come from?

Funds for the feasibility study have been drawn from the Town's Unrestricted Fund Balance.

According to the Town's Financial Policy, Unrestricted Fund Balance should be between 16-20% of the Total Annual Expenditures for the Town. As of June 30, 2017, Unrestricted Fund Balance exceeds 22% of Total Annual Expenditures.

Feasibility Study Costs and Savings

How much has the Town spent on the feasibility study?

As of June 1, 2018, \$1,471,845.18 has been spent on the feasibility study and the subsequent litigation.

Category	Initial Study	Litigation	Total
Legal	\$82,529.03	\$ 910,485.99	\$ 993,015.02
Expert	\$35,610.06	\$ 408,600.93	\$ 444,210.99
Administrative	\$0	\$ 34,619.17	\$ 34,619.17
	-----	-----	-----
Total	\$118,139.09	\$ 1,353,706.09	\$ 1,471,845.18

Would feasibility study funds be repaid if the Town purchases the water company?

Yes. The Town's financial analysis includes repayment of all acquisition costs, including the costs associated with the feasibility study and litigation. All ratepayers (including those in Hull and Cohasset) would share in these costs since they are all benefitting from Town ownership.

Have there been any savings to ratepayers since the feasibility study began?

As part of the Town's review of Aquarion's financial statements, it noted that Aquarion was paying almost 7% interest on the roughly \$30M of debt associated with the water treatment plant—a relatively high rate of interest in light of the economic climate following the financial collapse of 2008.

Six months after Town Meeting 2012 authorized the feasibility study, Aquarion refinanced its water treatment plant debt at a lower interest rate. That refinancing generated \$926,000 annually in ratepayer savings through 2022, at which point a final balloon payment of over \$12.7M will be due. The savings associated with refinancing were passed back to ratepayers.

In addition, in 2014, Aquarion received a one-time IRS tax reduction of \$410,000 that was passed back to ratepayers.

As of March 2018, aggregate ratepayer savings since the feasibility study began exceed \$5.5 million.

It should be noted that Aquarion disputes any suggestion that its water treatment plant debt refinancing was triggered by the Town's authorization to conduct a feasibility study.

